



Attorney's Docket No. 42P16779

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of: )  
)  
Knauerhase, Robert ) Examiner: Not Yet Assigned  
)  
Application No.: 10/609,202 )  
) Art Unit: 2127  
Filed: June 26, 2003 )  
)  
For: Virtual Machine Management Using )  
Processor State Information )  
\_\_\_\_\_ )

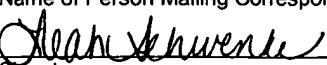
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a copy of Information Disclosure Citation Form PTO-1449 or PTO/SB/08 together with copies of the documents cited on that form. It is respectfully requested that the cited documents be considered and that the enclosed copy of Information Disclosure Citation Form PTO-1449 or PTO/SB/08 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

---

FIRST CLASS CERTIFICATE OF MAILING	
I hereby certify that I am causing the above-referenced correspondence to be deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and that this paper or fee has been addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450	
Date of Deposit:	January 5, 2004
Name of Person Mailing Correspondence:	Leah Schwenke
 Signature	1/05/04 Date

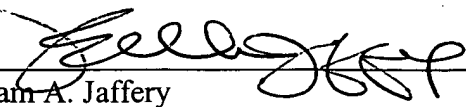


If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: January 5, 2004

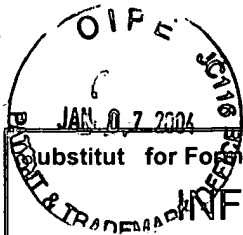
  
Aslam A. Jaffery  
Reg. No. 51,841

12400 Wilshire Blvd.  
Seventh Floor  
Los Angeles, CA 90025  
(408) 720-8300

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

- X   37 C.F.R. §1.97(b).
- 37 C.F.R. §1.97(c). If so, then enclosed with this Information Disclosure Statement is one of the following:
- A statement pursuant to 37 C.F.R. §1.97(e) or
- A check for \$180.00 for the fee under 37 C.F.R. § 1.17(p).
- 37 C.F.R. §1.97(d). If so, then enclosed with this Information Disclosure Statement are the following:
- (1) A statement pursuant to 37 C.F.R. §1.97(e); and
  - (2) A check for \$180.00 for the fee under 37 C.F.R. §1.17(p) for submission of the Information Disclosure Statement.



Substitut for Form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

## Complete if Known

Application Number	10/609,202
Filing Date	06/26/03
First Named Inventor:	Knauerhase
Art Unit	2127
Examiner Name	
Attorney Docket Number	42P16779

Sheet 1 of 4

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (If known)				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				
		US-				

## FOREIGN PATENT DOCUMENTS

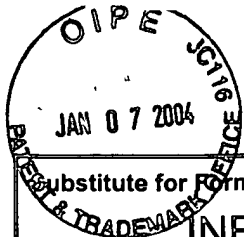
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		DE-DE4217444	12/03/1992	Toyohisa, Imada , et al.		
		EP-EP0473913	03/11/1992	Farrell, Joel A.		
		EP-EP0600112	06/08/1994	Wimmer, Manfred D.		
		EP-EP0930567	07/21/1999	Brewer, Jason M.		
		EP-EP1030237	08/23/2000	Proudlar, John , et al.		

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



<b>Substitute for Form 1449/PTO</b> <b>INFORMATION DISCLOSURE</b> <b>STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/609,202
				Filing Date	June 26, 2003
				First Named Inventor:	Knauerhase, R.
				Art Unit	2127
				Examiner Name	
Sheet	2	of	4	Attorney Docket Number	42P16779

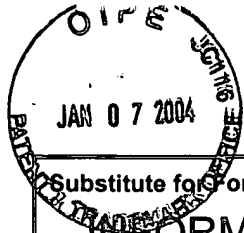
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		EP-EP1146715	10/17/2001	Wang, Xin , et al.		
		JP-JP2000076139	03/14/2000	Tanno, Masaaki , et al.		
		WO-WO0062232	10/19/2000	Headrick, Samuel P., et al.		
		WO-WO0127723	04/19/2001	Vamvakas, Athanasia , et al.		
		WO-WO0127821	04/19/2001	Chen, Liquan , et al.		
		WO-WO0175564	10/11/2002	Herbert, Howard C., et al.		
		WO-WO0175565	10/11/2001	Ellison, Carl M.		
		WO-WO0175595	10/11/2001	Ellison, Carl M., et al.		
		WO-WO02086684	10/31/2002	Proudlar, Graeme J.		
		WO-WO0217555	02/28/2002	Ford, Warwick		
		WO-WO9729567	08/14/1997	Gressel, Carmi , et al.		
		WO-WO9834365	08/06/1998	Devanbu, Premkumar T., et al.		
		WO-WO9844402	10/08/1998	Bramhill, Ian D., et al.		
		WO-WO9905600	02/04/1999	Garst, Blaine , et al.		
		WO-WO9909482	01/15/2002	Bausch, Jean		
		WO-WO9957863	11/11/1999	Hayes Jr., Kent F., et al.		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

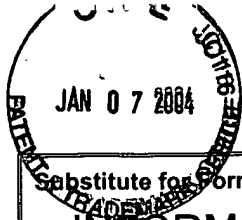


<b>Substitute for Form 1449/PTO</b> <b>INFORMATION DISCLOSURE</b> <b>STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/609,202
				Filing Date	June 26, 2003
				First Named Inventor:	Knauerhase, R.
				Art Unit	2127
				Examiner Name	
Sheet	3	of	4	Attorney Docket Number 42P16779	
<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T <sup>2</sup>
		BERG, CLIFF , "How Do I Create a Signed Applet?", <u>Dr. Dobb's Journal</u> , (08/1997),1-9			
		BRANDS, STEFAN , "Restrictive Blinding of Secret-Key Certificates", <u>SPRINGER-VERLAG XP002201306</u> , (1995),Chapter 3			
		CHEN, ANDREW A., et al., "Safe and Protected Execution for the Morph/AMRM Reconfigurable Processor", <u>7th Annual IEEE Symposium, FCCM '99 Proceedings, XP010359180, ISBN 0-7695-0375-6, Los Alamitos, CA, (4/21/1999),209-221.</u>			
		COMPAQ COMPUTER CORPORATION, et al., "Trusted Computing Platform Alliance (TCPA) Main Specification Version 1.1a", (12/2001),1-321			
		DAVIDA, GEORGE I., et al., "Defending Systems Against Viruses through Cryptographic Authentication", <u>Proceedings of the Symposium on Security and Privacy, IEEE Comp. Soc. Press, ISBN 0-8186-1939-2,(May 1989),</u>			
		GOLDBERG, ROBERT P., "Survey of Virtual Machine Research", <u>COMPUTER Magazine</u> , (06/1974),34-35			
		GONG, LI , et al., "Going Behind the Sandbox: An Overview of the New Security Architecture in the Java Development Kit 1.2", <u>Proceedings of the USENIX Symposium on Internet Technologies and Systems, Monterey, CA,(12/1997),</u>			
		GUM, P. H., "System/370 Extended Architecture: Facilities for Virtual Machines", <u>IBM J. Research Development, Vol 27, Number 6, (11/1983),530-544</u>			
		HEINRICH, JOE , "MIPS R4000 Microprocessor User's Manual, Second Edition", <u>Chapter 4 "Memory Management"</u> , (6/11/1993),61-97			
		IBM, "Information Display Technique for a Terminate Stay Resident Program IBM Technical Disclosure Bulletin", <u>TDB-ACC-No. NA9112156, Vol. 34, Issue 7A, (12/1/1991),156-158</u>			
		INTEL, "Intel386 DX Microprocessor 32-Bit CMOS Microprocessor With Integrated Memory Management", (1995),5-56			

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Substitute for Form 1449/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	10/609,202
				Filing Date	June 26, 2003
				First Named Inventor:	Knauerhase, R.
				Art Unit	2127
				Examiner Name	
Sheet	4	of	4	Attorney Docket Number	42P16779
<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T <sup>2</sup>
		KARGER, PAUL A., et al., "A VMM Security Kernel for the VAX Architecture", <u>Proceedings of the Symposium on Research in Security and Privacy</u> , XP010020182, ISBN 0-8186-2060-9, Boxborough, MA, (5/7/1990),2-19			
		KASHIWAGI, KAZUHIKO , et al., "Design and Implementation of Dynamically Reconstructing System Software", <u>Software Engineering Conference</u> , Proceedings 1996 Asia-Pacific Seoul, South Korea 4-7 Dec. 1996, Los Alamitos, CA USA, IEEE Comput. Soc, US, ISBN 0-8186-7638-8,(1996),			
		LAWTON, KEVIN , et al., "Running Multiple Operating Systems Concurrently on an IA32 PC Using Virtualization Techniques", <a href="http://www.plex86.org/research/paper.txt">http://www.plex86.org/research/paper.txt</a> , (11/29/1999),1-31			
		LUKE, JAHN , et al., "Replacement Strategy for Aging Avionics Computers", <u>IEEE AES Systems Magazine</u> , XP002190614,(March 1999),			
		MENEZES, OORSCHOT , "Handbook of Applied Cryptography", <u>CRC Press LLC, USA</u> XP002201307, (1997),475			
		MOTOROLA, "M68040 User's Manual", (1993),1-1 to 8-32			
		RICHT, STEFAN , et al., "In-Circuit-Emulator Wird Echtzeittauglich", <u>Elektronik, Franzis Verlag GMBH, Munchen, DE</u> , Vol. 40, No. 16, XP000259620,(100-103),8-6-1991			
		ROBIN, JOHN S., et al., "Analysis of the Pentium's Ability to Support a Secure Virtual Machine Monitor", <u>Proceedings of the 9th USENIX Security Symposium</u> , XP002247347, Denver, Colorado, (8/14/00),1-17			
		ROSENBLUM, M. , "Virtual Platform: A Virtual Machine Monitor for Commodity PC", <u>Proceedings of the 11th Hotchips Conference</u> , (8/17/1999),185-196			
		SAEZ, SERGIO , et al., "A Hardware Scheduler for Complex Real-Time Systems", <u>Proceedings of the IEEE International Symposium on Industrial Electronics</u> , XP002190615,(July 1999),43-48			
		SHERWOOD, TIMOTHY , et al., "Patchable Instruction ROM Architecture", <u>Department of Computer Science and Engineering, University of California, San Diego, La Jolla, CA</u> , (Nov. 2001),			